

ABSTRACT OF THE DISCLOSURE

- A combined satellite positioning and electro-optical total station system includes a reference oscillator that provides local oscillator signals for a satellite navigation receiver and a precision frequency source for use by an electronic distance meter. When the satellite navigation receiver is locked onto and tracking orbiting navigation satellites, the highly precise cesium-rubidium clocks in the navigation satellite system can be used as standards to control the reference oscillator in the combined satellite positioning and electro-optical total station system.
- Baseline measurements made by the electronic distance meter are therefore not subject to mis-calibrations and drift as long as the satellite navigation receiver is locked onto and tracking the orbiting navigation satellites.